

WHAT IS CLAIMED IS:

1. A medical bandaging product in roll form for being dispensed in predetermined lengths suitable for a given medical use, and comprising an elongate sleeve formed of moisture-impervious material and sealable to prevent entry of moisture, and an elongate medical bandage material substantially the same length as the sleeve and positioned in the sleeve in a single length along the length of the sleeve and sealed therein against entry of moisture until use, the medical bandage material comprising:

- (a) a substrate comprising a foam layer;
- (b) and a reactive system impregnated into or coated onto the substrate and remaining stable when maintained in substantially moisture-free conditions and hardening upon exposure to sufficient moisture to form a rigid, self supporting structure;
- (c) the substrate adapted for having a protective padding material interposed between the substrate and the patient; and
- (e) resealing means for resealing the sleeve against entry of moisture after a predetermined length of the bandage material has been dispensed from the sleeve for use to prevent hardening of the substrate of the bandage material remaining in the sleeve.

2. A medical bandaging product according to claim 1, wherein the sleeve comprises an aluminum foil laminate having an outer tear resistant layer, a central aluminum foil layer and an inner heat sealable plastic layer.

3. A medical bandaging product according to claim 1, wherein the foam comprises a polymer foam.
4. A medical bandaging product according to claim 3, wherein the reactive system comprises a blended polyisocyanate, polyol, catalyst and stabilizer.
5. A medical bandaging product according to claim 1, and including a textile reinforcement layer applied to the foam layer.
6. A medical bandaging product according to claim 3, wherein the roll comprises the sleeve with the medical bandage material therein and the sleeve formed into a coil.
7. A medical bandaging product according to claim 1, and including a dispenser within which the coil of bandage material is contained.
8. A medical bandaging product according to claim 1, wherein some of the fibers of the textile reinforcement layer penetrate into the foam layer for providing rigidity and stability to the bandage material.

9. A medical bandaging product for being packaged in predetermined lengths suitable for a given medical use, and comprising:

- (a) a sleeve formed of moisture-impervious material and sealable to prevent entry of moisture and a medical bandage material positioned in the sleeve and sealed therein against entry of moisture until use, the medical bandage material comprising a substrate formed of a foam layer with an attached textile reinforcement layer, a reactive system impregnated into or coated onto the substrate, the system remaining stable when maintained in substantially moisture-free conditions and hardening upon exposure to sufficient moisture to form a rigid, self supporting structure; and
- (b) the substrate being adapted for having a protective padding material interposed between the substrate and the patient.

10. A medical bandaging product having a predetermined length suitable for a given medical use is provided, and comprising:

- (a) an enclosure formed of a moisture-impervious material sealable to prevent entry of moisture, the enclosure including an elongate, resealable dispensing sleeve with a medical bandage material positioned in the enclosure and sealed therein against entry of moisture until use; and
- (b) the medical bandage material comprising a substrate formed of a foam layer and a textile reinforcement layer, a reactive system impregnated into or coated onto the substrate, the system remaining stable when maintained in substantially moisture-free conditions and hardening upon exposure to sufficient moisture to form a rigid, self supporting structure and comprising a blended polyisocyanate, polyol, catalyst and stabilizer.

11. A method of constructing a medical bandaging product, comprising the steps of:
 - (a) providing a moisture-impervious package and an elongate medical bandage material comprised of a substrate enclosed within a padding layer, the substrate comprising a foam layer and a textile reinforcement layer;
 - (b) impregnating into or coating onto the substrate a reactive system which remains stable when maintained in substantially moisture-free conditions and hardens upon exposure to sufficient moisture to form a rigid, self-supporting structure;
 - (c) positioning the medical bandage material within the package; and
 - (d) sealing the sleeve to prevent entry of moisture until use.
12. A method according to claim 11, wherein the package comprises an elongate sleeve, and the medical material is generally the same length as the sleeve, and the step of positioning the bandage material within the package comprises the step of placing the bandage material within the sleeve such that the bandage material extends along the length of the sleeve in a single layer.
13. A method according to claim 11, and including the step of penetrating some of the fibers of the textile reinforcement layer into the foam layer for providing rigidity and stability to the bandage material.